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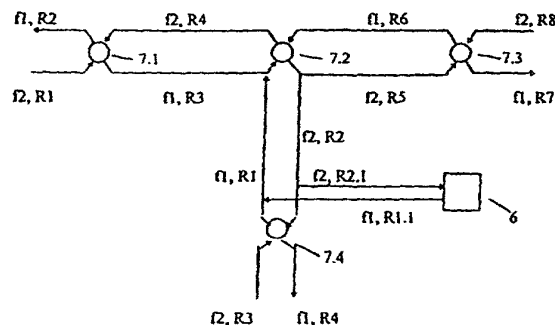
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(54) Title: METHOD AND DEVICE FOR TRANSMITTING DATA OVER LOW-VOLTAGE NETWORKS

(54) Bezeichnung: VERFAHREN UND ANORDNUNG ZUR DATENÜBERTRAGUNG ÜBER NIEDERSPANNUNGSNETZE

(57) Abstract

The invention relates to a method for transmitting data in two-way communication over low-voltage networks which are provided with or without coupling to a higher-order telecommunications, voice or data network. The transmission in the low-voltage network is carried out in a high frequency range greater than 148.5 kHz with a band spread of the data signals and a transmission level less than the radio and line disturbance voltage limits to be applied to the method. The signals which are distributed in the frequency and/or time range and which are provided for guaranteeing a multi-channel structure with different sequences of one or more families of numeric values are provided with a directional coding, frequency assignment or time slot assignment in order to give a receiver-specific logical direction in the low-voltage network. The binary data sequences which are channel-specifically distributed in this manner and which are characterized in a directional-specific manner are identified, regenerated, and evaluated with a new directional identification for routing the signals in the low-voltage network according to the degree of attenuation. This is carried out with the assistance of the given sequences by means of correlation, iterative or parallel disturbance signal suppression methods or by means of time/frequency transformation.



Abstract

This invention relates to a method for data transmission in two-way communication via low-voltage systems that are
5 linked to a higher order telecommunication network. Data transmission takes place at a high-frequency range above 148.5 kHz using band spreading of data signals and a transmit level below the interference or noise voltage limit of line and radio disturbance characteristics
10 applicable to the method described, and in that said signals that are spread over a frequency band or time range using different sequences of one or several families of numeric values to enable multiple-channel operation are given a direction coding, frequency or channel assignment
15 to specify a receiver-specific logical direction within the low-voltage system, said binary data sequences spread in a channel-specific way within the low-voltage system being identified, regenerated, and reassigned new direction codes for forwarding based on the specified sequences using
20 correlation, iterative, or parallel fault signal suppression methods or time/frequency transformation depending on attenuation.